

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A rotary fluid machine comprising:
a first rotation mechanism and a second rotation mechanism, each of which includes a cylinder having an annular cylinder chamber;
an annular piston disposed in the cylinder chamber to be eccentric to the cylinder, the annular piston dividing the cylinder chamber into an outer working chamber and an inner working chamber; and
a blade arranged in the cylinder chamber to divide each of the working chambers into a high pressure region and a low pressure region, the piston and the cylinder serving as co-operating parts and any one of the piston and the cylinder being stationary and the other being rotatable about the stationary co-operating part,
the first rotation mechanism and the second rotation mechanism being adjacent to each other with a partition plate sandwiched therebetween, and
the two moving co-operating parts or the two stationary co-operating parts of the first rotation mechanism and the second rotation mechanism being arranged such that one of the co-operating parts is provided at one side of the partition plate and the other is provided at the other side of the partition plate, and
the first rotation mechanism and the second rotation mechanism being configured to rotate with a 90° phase difference from each other.

2. (Previously Presented) The rotary fluid machine according to claim 1, wherein
the inner working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as low-stage compression chambers, and
the outer working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as high-stage compression chambers.

3. (Previously Presented) The rotary fluid machine according to claim 1, wherein

the outer working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as compression chambers, and

the inner working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as expansion chambers.

4. (Previously Presented) The rotary fluid machine according to claim 1, wherein

the partition plate serves as the end plates of the co-operating parts of the first rotation mechanism and the second rotation mechanism.

5. (Previously Presented) The rotary fluid machine according to claim 1, wherein

the co-operating part of the first rotation mechanism and the co-operating part of the second rotation mechanism adjacent to the first rotation mechanism have individual end plates, and

the partition plate is formed of the end plates of the co-operating parts of the first and second rotation mechanisms.

6. (Previously Presented) The rotary fluid machine according to claim 1, wherein

the moving co-operating parts of the first and second rotation mechanisms are connected to a drive shaft, and

each of the first rotation mechanism and the second rotation mechanism is provided with a compliance mechanism for adjusting the position of the co-operating parts in an axial direction of the drive shaft.

7. (Previously Presented) The rotary fluid machine according to claim 1, wherein

the moving co-operating parts of the first and second rotation mechanisms are connected to a drive shaft, and

each of the first rotation mechanism and the second rotation mechanism is provided with a compliance mechanism for adjusting the position of the co-operating parts in a direction orthogonal to an axial direction of the drive shaft.

8. (Currently Amended) The rotary fluid machine according to ~~claim 4~~ claim 5, wherein

the moving co-operating parts of the first and second rotation mechanisms are connected to a drive shaft, and

a balance weight is provided at a part of the drive shaft located between the end plates - of the co-operating parts of the first rotation mechanism and the second rotation mechanism - adjacent to each other.

9. (Currently Amended) The rotary fluid machine according to ~~claim 1~~ claim 11, wherein

the first rotation mechanism and the second rotation mechanism are configured to rotate with a 90° phase difference from each other.

10. (Previously Presented) The rotary fluid machine according to claim 1, wherein

in each of the first and second rotation mechanisms, part of the annular piston is cut off such that the piston is C-shaped,

the blade extends from the inner wall surface to the outer wall surface of the cylinder chamber and passes through the cut-off portion of the piston, and

a swing bushing is provided in the cut-off portion of the piston to contact the piston and the blade via the surfaces thereof such that the blade freely reciprocates and the blade and the piston make relative swings.

11. (New) A rotary fluid machine comprising:

a casing;

a first rotation mechanism and a second rotation mechanism, each of which includes a cylinder having an annular cylinder chamber;

an annular piston disposed in the cylinder chamber to be eccentric to the cylinder, the annular piston dividing the cylinder chamber into an outer working chamber and an inner working chamber; and

a blade arranged in the cylinder chamber to divide each of the working chambers into a high pressure region and a low pressure region, the piston and the cylinder serving as co-operating parts and any one of the piston and the cylinder being stationary and the other being rotatable about the stationary co-operating part,

the first rotation mechanism and the second rotation mechanism being adjacent to each other with a partition plate sandwiched therebetween and disposed between a first housing and a second housing inside of the casing,

the two moving co-operating parts or the two stationary co-operating parts of the first rotation mechanism and the second rotation mechanism being arranged such that one of the co-operating parts is provided at one side of the partition plate and the other is provided at the other side of the partition plate,

the two moving co-operating parts of the first and second rotation mechanisms being connected to a drive shaft,

each of the first rotation mechanism and the second rotation mechanism being provided with a compliance mechanism for adjusting the position of the co-operating parts in an axial direction of the drive shaft, and

the compliance mechanism being configured to secure the second housing on the casing, mount the first housing movable with respect to an axial direction of the drive shaft, and adjust a position of the co-operating parts by operating a high pressure fluid on a back surface of the movable first housing.

12. (New) The rotary fluid machine according to claim 11, wherein

the inner working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as low-stage compression chambers, and

the outer working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as high-stage compression chambers.

13. (New) The rotary fluid machine according to claim 11, wherein
the outer working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as compression chambers, and
the inner working chambers of the cylinder chambers of the first rotation mechanism and the second rotation mechanism serve as expansion chambers.

14. (New) The rotary fluid machine according to claim 11, wherein
the partition plate serves as the end plates of the co-operating parts of the first rotation mechanism and the second rotation mechanism.

15. (New) The rotary fluid machine according to claim 11, wherein
the co-operating part of the first rotation mechanism and the co-operating part of the second rotation mechanism adjacent to the first rotation mechanism have individual end plates, and
the partition plate is formed of the end plates of the co-operating parts of the first and second rotation mechanisms.

16. (New) The rotary fluid machine according to claim 11, wherein
the moving co-operating parts of the first and second rotation mechanisms are connected to a drive shaft, and
each of the first rotation mechanism and the second rotation mechanism is provided with a compliance mechanism for adjusting the position of the co-operating parts in a direction orthogonal to an axial direction of the drive shaft.

17. (New) The rotary fluid machine according to claim 11, wherein
in each of the first and second rotation mechanisms, part of the annular piston is cut off such that the piston is C-shaped,

the blade extends from the inner wall surface to the outer wall surface of the cylinder chamber and passes through the cut-off portion of the piston, and

a swing bushing is provided in the cut-off portion of the piston to contact the piston and the blade via the surfaces thereof such that the blade freely reciprocates and the blade and the piston make relative swings.